

APERTURE PLATE FOR OPTICAL LITHOGRAPHY SYSTEMS

Abstract

A pupil aperture plate situated on a light path of an optical lithography system for providing specific illumination patterns is disclosed. The pupil aperture plate includes a plate body having thereon a pole aperture (defined by σ_{inner}) located at the center of the plate. A set of four sector apertures, each of which has an opening angle θ , radiating from a reference center point of the pole aperture. The distance of the sector aperture from the reference center point of the pole aperture is defined by σ_{outer} . The pupil aperture plate provides Bow-Pole and Quasar illumination patterns in combination with conventional and annular illuminations, respectively.